

Preface

The papers in this issue of the *IBM Systems Journal* deal with the subject of installation management, specifically capacity planning and communications network management. The discipline of a systematic approach to the process of installation management helps bring about successful plans and operations. Capacity planning techniques may range from simple rules and procedures to complex benchmarking, as exemplified by the different methods presented by the papers in this issue. Similarly, there are a variety of approaches to managing a communications computer network; two are covered in the papers in this issue.

Data processing planning requires the ability to determine present and future user workloads and effectively match those requirements to present and future computer capacity. The first paper is an overview of capacity planning by Bronner, in which he introduces the concept and discusses the requirements for capacity planning and the measurement tools and reports available to implement such a program. One such procedure, called Understanding Your Application and Growth Environment (USAGE), is described by Cooper in his paper. The USAGE technique focuses on capacity planning for the CPU and gives a planner guidelines and a systematic approach without the time, expense, or rigor of a model or benchmark.

Modeling is frequently used in capacity planning and is the subject of several papers. In his paper, Schiller describes an analytical model using simple queuing formulas to evaluate the performance of MVS. He discusses the model itself, the equations involved, and the general procedure for using the model. Seaman also uses an analytical model for predicting performances of CICS/VS systems, emphasizing the characteristics that make it an easily used yet effective planning aid. The paper by Nguyen, Ockene, Revell, and Skwish has as its subject a modular simulator of SNA systems, informally called FIVE. This simulation model was developed primarily for distributed data processing systems like the IBM 3790 and 8100 systems.

Another aspect of installation management is the prevention or removal of performance problems to ensure maximum efficiency from present capacity. The management of an MVS installation is the subject of the paper by Schardt. The author suggests a set of guidelines to help avoid performance problems and offers an approach to tuning an MVS system.

In recent issues, we have presented papers on telecommunications topics: for example, the paper by Weingarten in the last issue described a set of programs to help automate the communications management task. In this issue, different methods to accomplish communications network management are explored. The paper by Leach and Campenni presents the results of a prototype that used a separate processor to manage the network, an approach referred to as *sidestream*.

Bird and Hofmann describe the design of a set of cohesive programs to help facilitate network management. The resulting products are integral to the main computer system, a *mainstream* approach to network management. Much development activity in the field of network management continues, as the diversity in approaches and techniques suggests.

In 1975, a decision was made to make individual reprints of *Systems Journal* papers available from IBM. These reprints can be ordered through the local IBM branch office using the order number found at the end of each paper. A listing of all reprints available to date, with their respective order numbers, is found beginning on page 163.

Connie Thiel
Editor